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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SANDERS, ALLYSON N

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/976,839

Applicant(s)

LATIMER ET AL.

Examiner

Allyson N Sanders

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 and 56-80 is/are pending in the application.
- 4a) Of the above claim(s) 63-80 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-29, 37-45, 47, 48 and 60 is/are allowed.
- 6) ☒ Claim(s) 30, 31, 46, 50, 56, 61 and 62 is/are rejected.
- 7) ☒ Claim(s) 32-36, 49, 51-53, and 57-59 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Amendment

1. Receipt is acknowledged of the Amendment filed October 14, 2003.

Remarks

2. The final rejection is withdrawn. The amendment filed July 24, 2003 was entitled "Supplemental Preliminary Amendment." The July 24, 2003 amendment evidently crossed in the mail with the July 24, 2003 office action. The examiner erroneously treated the July 24, 2003 amendment as a response to the September 10, 2003 office action. The examiner regrets any inconvenience to the applicant.

Election/Restrictions

3. Newly submitted claims 63-80 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Claims 63-80 are geared to a system for providing feedback to a cashier by using a POS application which monitors the cashier's performance. Claims 63-80 focus more on the actual POS software application program including logging into the POS application, connecting the POS to a network, and specifics on the performance goal screen, whereas original claims 1-53 and 56-62 disclose a method of training a cashier by monitoring the actual reading technique.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 63-80 are withdrawn from consideration

as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Objections

4. Claim 28 is objected to because of the following informalities:

Re claim 28, line 1: replace "A method further" with --A method according to claim 23 further--.

Appropriate correction is required.

The examiner's amendment, which was discussed November 25, 2003, is no longer necessary since the application is not being allowed.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 30, 31, 46, 50, 56, 61, and 62 are rejected under 35 U.S.C. 102(e) as being anticipated by Keys et al (6,394,351).

Claim 30 of the current invention discloses the following:

"A data reading system for reading symbols on items passed through a scan volume by an operator, comprising a housing; a data reader disposed in the

housing for reading a symbol on an item being passed through the scan volume, and for obtaining symbol orientation data and symbol movement data during scanning; a processor integrated with the data reader for processing the symbol orientation data and the symbol movement data, and for determining an effectiveness of a scanning technique; feedback means in communication with the processor for providing feedback indicating the effectiveness of the scanning technique. "

Keys et al teaches the following in regards to claim 30:

"Bar code scanners are presently used in numerous applications, and help to increase efficiency and accuracy wherever they are used. The use of bar code scanners in retail transactions decreases the time required to enter a transaction, and decreases the chance of an error during manual entry of data." (Col. 1, lines 30-35).

"Reconstruction of the location of a bar code label in space and time allows the determination of the speed and direction of the label as it is passed over the scanner. This allows the scanner to be programmed to give feedback to a cashier to assist in self-training to improve the efficiency of utilization of the scanner. The time and space data also makes it possible to capture improved first pass read metrics to allow a store manager to determine which cashiers are most efficient and which need further training." (Col. 2, line 63 - col. 3, line 4).

Claim 31 of the current invention discloses the following:

"The data reading system of claim 30 further comprising a weigh scale integrated with the data reader for obtaining a dynamic weight of the item during scanning."

Keys et al teaches the following in regards to claim 31:

“The illustrated bar code scanner 10 also preferably includes a scale assembly 16 on which an object such as variable mass 21 may be placed for weighing. For example, the variable mass 21 may be a bag of apples or other produce which is sold by the pound by a grocery store.” (Col. 3, lines 54-59).

Claim 46 of the current invention discloses the following:

“A data reading system, comprising a housing; a reading device disposed in the housing for detecting an aspect of an item being moved through a detection volume of the device; means for monitoring operating technique of an operator as to how the operator moves items through the detection volume; feedback means in communication with the monitoring means for providing feedback on the operating technique.”

Keys et al also reads on claim 50, which discloses the following:

“A method for providing feedback to an operator at an item handling station, comprising the steps of monitoring an operating technique by which the operator handles items at the item handling station; evaluating the operating technique; providing feedback indicative of the operating technique by which the operator handles items at the item handling station.”

The above teachings by Keys et al also apply to claims 46 and 50 of the current invention. Additionally, Keys et al teaches claim 16, which also reads on claims 30, 46, and 50.

"16. A method of bar code scanner training comprising the steps of: scanning a bar code label as an operator passes a product through a scan field of a scanner; determining the time and angle of a motor revolution associated with each video transition produced by each of a plurality of scans of the bar code label, a separate time and angle of motor revolution being associated with each video transition, the time and angle of motor revolution indicating the time at which the video transition occurred and the angle of motor revolution existing when the video transition occurred; employing the time and angle of the motor revolution to reconstruct in space and time location information indicating a probable location of the bar code label with respect to the scanner as each scan occurs; storing scan information along with the location information in order to provide reference information reflecting characteristics of the scan of the bar code label as influenced by the location of the bar code label; and providing the operator with feedback upon said reconstruction." (Col. 11, line 28 - col. 12, line 11).

Claim 56 of the current invention discloses the following:

"A system for data reading, comprising a data reader used by an operator for obtaining identification information from a label or tag on an item; monitoring means for monitoring ergonomics of operating technique as the operator uses the data reader to read items; feedback means in communication with the monitoring means for providing feedback of the ergonomics of the operating technique."

Keys et al also reads on claim 56 for the following reason: Keys et al teaches monitoring how the user moves the item past the scanner. This will include monitoring the ergonomics of the operating technique.

Claim 61 of the current invention discloses the following:

"A method of operating a data reader, comprising monitoring operating performance as an operator passes items through a read volume by determining an actual read location in the read volume where the read occurred and comparing the actual read location to an optimum read location; providing feedback of the operating performance directly to the operator."

Keys et al teaches the following in regards to claim 61:

"By reconstructing in time and space the probable location of a bar code label at the time scanned, a large number of advantages may be achieved. For example, more than one bar code label can be read at the same time, whether or not the two labels are on the same item or two different items, and even if both have the same bar code data. The time and space data will allow discrimination between two items of the same kind scanned in rapid succession or even substantially simultaneously from a rapidly occurring double read of the same item." (Col. 2, lines 53-63).

"Reconstruction of the location of a bar code label in space and time allows the determination of the speed and direction of the label as it is passed over the scanner. This allows the scanner to be programmed to give feedback to a cashier to assist in self-training to improve the efficiency of utilization of the scanner. The time and space data also makes it possible to capture improved first pass read metrics to allow a store

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manager to determine which cashiers are most efficient and which need further training." (Col. 2, line 64 - Col. 3, line 4).

Claim 62 of the current invention discloses the following:

"A method according to claim 61 wherein the data reader comprises a device selected from the group consisting of: optical reader, bar code reader, CCD imaging data reader, LED reader, CMOS imaging reader, RFID reader, EAS deactivation device."

Keys et al teaches the following in regards to claim 62:

"The present invention relates to bar code scanners. More particularly, the invention relates to methods and apparatus for collecting and recording time and mirror position information during bar code scans." (Col. 1, lines 24-26).

Allowable Subject Matter

7. Claims 1-29, 37-45, 47, 48, and 60 are allowed over prior art and claims 32-36, 49, 51-53, 57-59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's reason for allowance: Although Walker et al teaches performance evaluation method, the above identified prior art of record, taken alone, or in combination with any other prior art, fails to teach or fairly suggest the specific features of claims 1-29, 37-45, 47, 48, 57-62 and 32-36, 49, and 51-53. The best prior art of record fails to specifically teach or fairly suggest the method of training a

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data reader operator or method of scanning, which are disclosed in the claims.

Limitations not disclosed in prior art include the operator passing an item through a read volume of a data reader, obtaining symbol data and item identification data, monitoring reading technique to obtain read technique data, sending the item identification data and the read technique data to an evaluation system, obtaining optimum read technique data, comparing the read technique data to the optimum read technique data to determine an effectiveness of the reading technique, and lastly, providing feedback indicating the effectiveness of the reading technique. Additionally, prior art fails to teach the method of scanning which includes an operator passing an item through the scan volume of a scanner while moving the item across a weigh scale integrated with the scanner. The symbol on the item is scanned to obtain symbol data and a dynamic weight of the item is obtained when the item is moved across the weigh scale. Once the dynamic weight is determined, the optimum dynamic weight is obtained from a lookup table containing item weight data corresponding to the symbol data. The dynamic weight of the item is compared to the optimum dynamic weight data to determine an extent of lifting performed by the operator and data regarding the extent of lifting to at least one of a training system and monitoring system is provided. Still further prior art fails to teach a feedback means in communication with a processor for providing feedback indicating the effectiveness of the scanning technique. Furthermore, prior art fails to teach the feedback means comprising a visual feedback display on the housing, which is visible to the operator and the visual feedback display being in the

form of a graphical display. Moreover, one of ordinary skill in the art would not have been motivated to come to the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Burkey et al (6,497,366).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Allyson Sanders* whose telephone number is (703) 305-5779 until January 15, 2004, when it will change to (703) 272-2406. The examiner can normally be reached between the hours of 7:30AM to 4:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703) 305-3503. The fax phone number for this Group is (703) 872-9306.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [allyson.sanders@uspto.gov].

*All Internet e-mail communications will be made of record in the application file.
PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record*

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includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Allyson Sanders
Patent Examiner
Art Unit 2876
November 25, 2003

Jared J. Furman
Jared J. Furman
Art Unit 2876